

STUDENT ID NO												
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# MULTIMEDIA UNIVERSITY

# FINAL EXAMINATION

TRIMESTER 1, 2017/2018

## **MVR2033 – SIMULATION TECHNOLOGY**

(All sections / Groups)

14 OCTOBER 2017 2.30 p.m. - 4.30 p.m. (2 Hours)

### INSTRUCTIONS TO STUDENTS

- 1. This Question paper consists of 3 pages with 6 questions only.
- 2. Answer **FIVE** out of SIX questions. All questions carry equal marks and the distribution of the marks for each question is given.
- 3. Please write all your answers in the Answer Booklet provided.

### Total marks are 100 | Answer only 5 questions

#### **QUESTION 1**

a. What are the characteristics of the Educational Simulations (which is part of Immersive Learning Simulation)? Mention 5 of the characteristics. [10 Marks]



Figure 1

b. What are the differences between Serious Games (such as: Simcity, Farmville, Pizza Mania, etc.) compared with Educational Simulation? [10 Marks]

#### **QUESTION 2**

- a. What are the techniques to increase the engagement in games? And how to achieve that? [10 Marks]
- b. Pedagogy / didactics generally surrounds a learning experience, ensuring that participants spend their time productively. Mention 5 of the pedagogical techniques beside the Replay option and the Bread Crumbs (indicators of where a participant has already been) [10 Marks]

#### **QUESTION 3**

Explain how the HTC Vive tracking sensor knows the user's position in the movement area? [20 Marks]

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#### **QUESTION 4**

- a. Does 3D Interaction only be created by the 3D input devices? Explain why? [10 Marks]
- b. Write down 5 items of 3D input devices. [10 Marks]

#### **QUESTION 5**

- a. For Virtual Reality devices, we should know how the characteristics of "Properties of Visual Display" are. The "Properties of Visual Display" are divided into two aspects, which are the Visual Presentation and the Logistic Properties. Discuss 5 of the Visual Presentation and Logistic Properties. [10 Marks]
- b. What is surround screen display? What are the advantages and disadvantages of having a surround screen display? Mention 3 for each. [10 Marks]

#### **QUESTION 6**

- a. What is the meaning of Haptic? [5 Marks]
- b. What are the 5 categories of Haptics display types? Explain them. [15 Marks]

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